## Citrate Buffer; pH 4.0

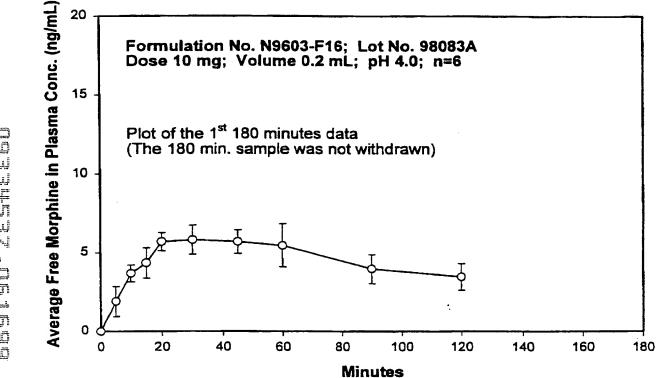


Figure 1: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Sprav. Lot No. 98083A.

## Citrate Buffer

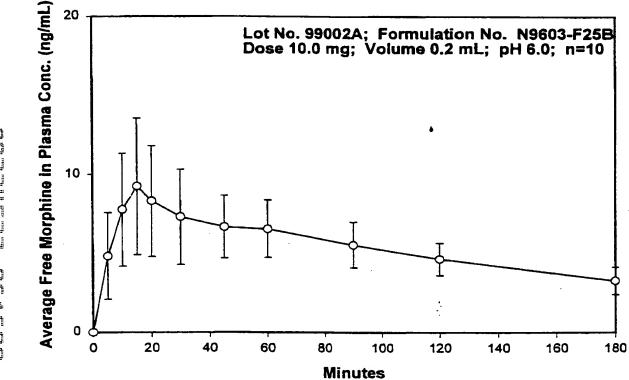


Figure 2: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Spray, Lot No. 99002A.

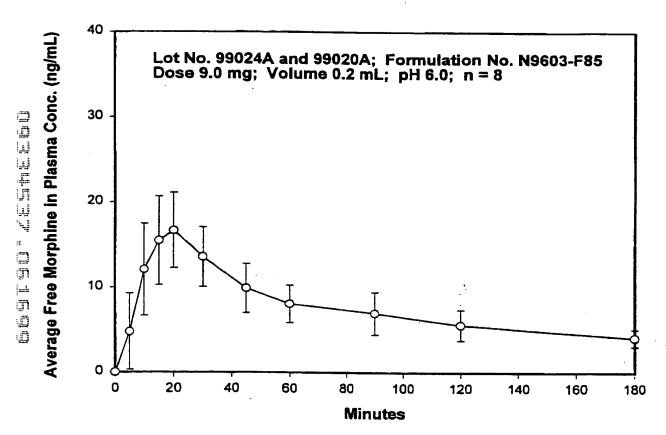


Figure 3: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Sprav. Lot No. 99024A and 99020A.

## • Salicylate (1.0 %)

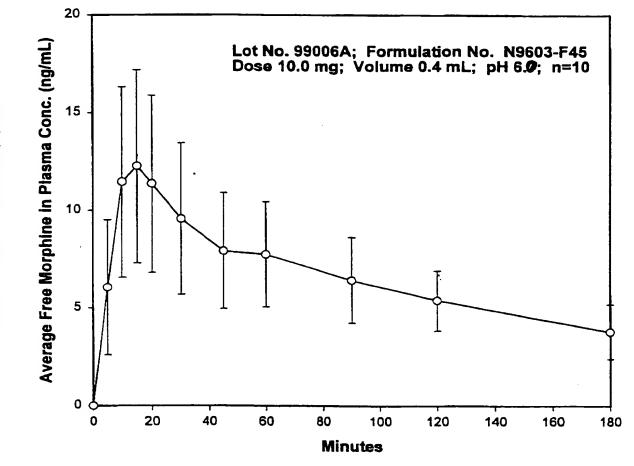


Figure 4: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Spray, Lot No. 99006A.

- Myrj (~10%)
- Tween 20 (5%)

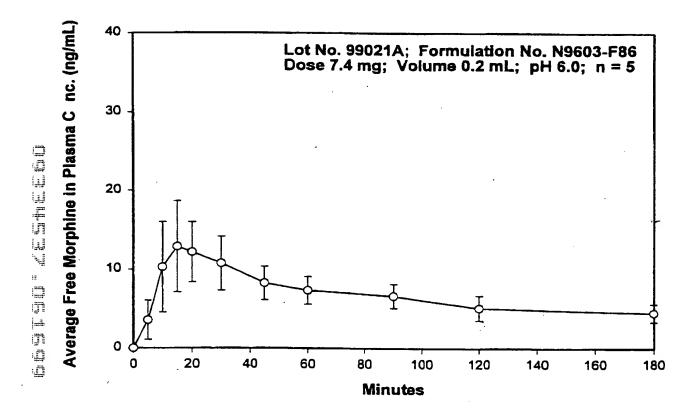
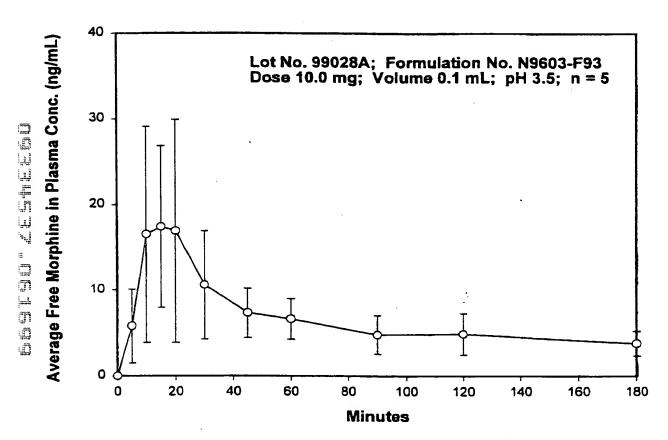


Figure 5: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Sprav. Lot No. 99021A.

• Tween 20 (5%)



**Figure 6:** Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Spray, Lot No. 99028A.

• Tween 20 (5%)

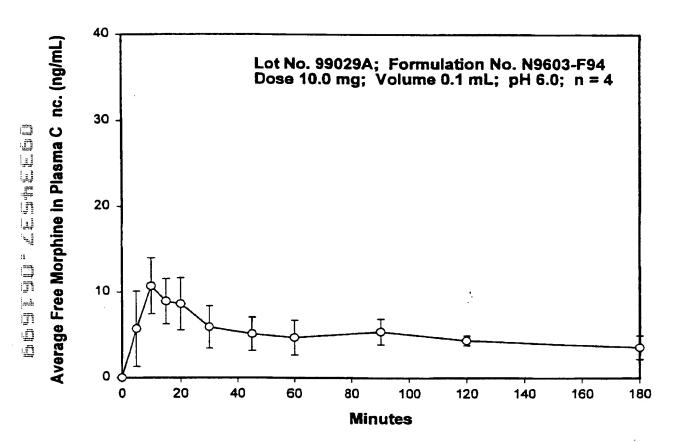


Figure 7: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Spray, Lot No. 99029A.

- Lecithin (1%)
- Tween 20 (5%)

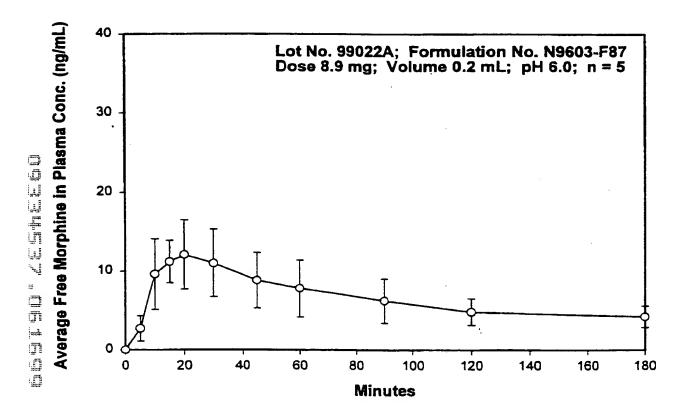
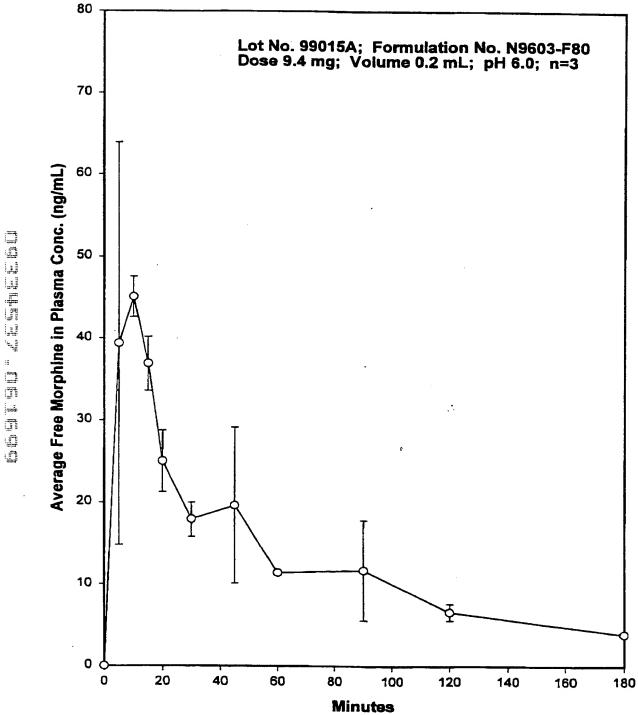


Figure 8: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Spray, Lot No. 99022A.

- \* SLS (1%)
- Tween 20 (5%)



Figur 9: Plots of Average Fre Morphine Plasma Conc. vs. Time for Morphine Sulfat Nasal Spray, Lot No. 99015A.

- Oleic Acid (0.25%)
- Tween 20 (5%)

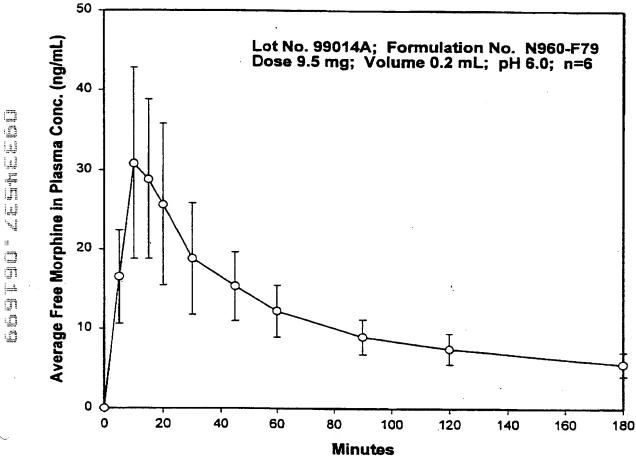


Figure 10: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Spray, Lot No. 99014A.

• Tween 20 (5%)

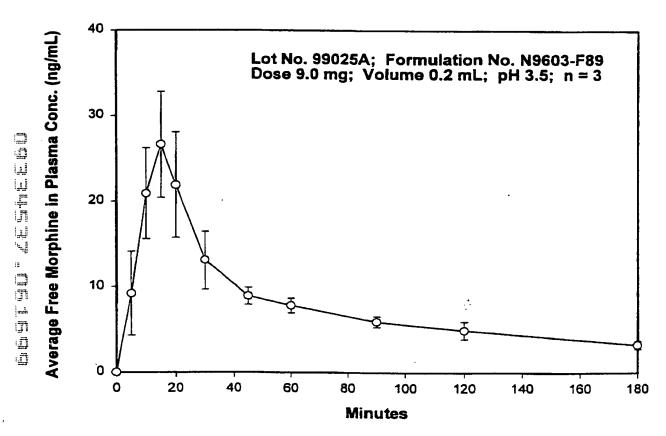


Figure 11: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Spray, Lot No. 99025A.

- Salicylate (0.5%)
- SLS (0.5%)
- Tween 20 (5%)

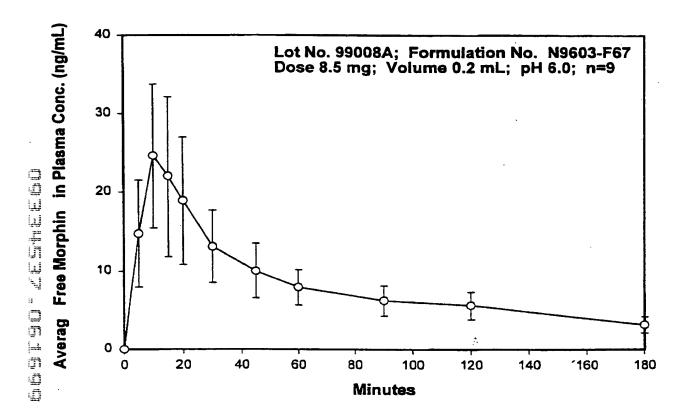


Figure 12: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Spray, Lot No. 99008A.

- SLS (1%)
- Oleic Acid (0.5%)
- Tween 20 (5%)

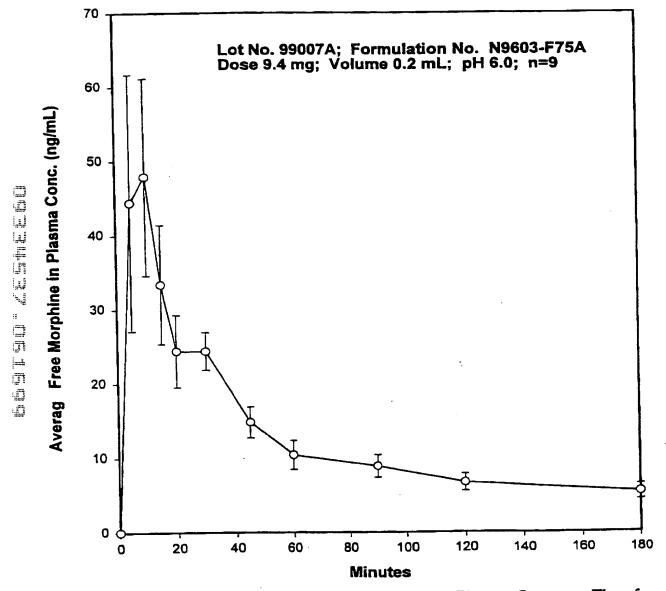


Figure 13: Plots of Average Free Morphine Plasma Conc. vs. Time for Morphine Sulfate Nasal Spray, Lot No. 99007A.